Index to Volume 30

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How to Use This Index

This index is of similar form to the Cumulative Indexes of this journal, covering, respectively, Volumes 1–10 and Volumes 11–20, and is composed of two main divisions: the Author Index and the Subject Index.

The Subject Index to Volume 30 of *The Journal of the Acoustical Society of America* lists the titles of all the papers, abstracts, and patents under thirteen section headings as follows: 0, General, Unclassified; 1, Acoustical Society of America; 2, Architectural Acoustics; 3, Books, Bibliographies, and Surveys; 4, The Ear and Hearing; 5, Applied Acoustics, Instruments and Apparatus; 6, Musical Instruments and Music; 7, Noise; 8, Standards; 9, Speech and Singing; 10, Ultrasonics (Supersonics); 11, Waves and Vibrations; 12, Mechanical Vibration and Shock; and 13, Underwater Sound. Each of these sections is further divided into a considerable number of decimally numbered subjects, which are listed below under the heading, "Classification of Subjects." Each subject is divided into eight parts entitled Papers, Letters to the Editor, Abstracts, Subtitles, Patents, Book Reviews, News, and Errata. Under Papers will be found the original titles of all the papers appearing in the journal on that subject. Under Abstracts are listed the titles of the papers presented at meetings. Since a great amount of valuable material appears in the journal in papers whose titles cannot fully describe all the subjects which the papers cover, some subtitles of papers have been indexed under the heading Subtitles. When subtitles covering the material did not appear in the paper, they were written; the captions of some of the figures were also included under this heading. Thus, while the Subtitles portion of the index is informal, it is hoped that it will increase the probability of finding the desired information quickly. All patents appearing in the journal are listed under the heading Patents. New classifications are added from time to time. The year in which classifications are added appears in parentheses after the subject classes.

The reader or his librarian should go over the list of errata classified under 0.1, and either make the indicated corrections in the original papers or enter a note beside the title of the original paper—"See Erratum, Vol. XX, p. XXX."

References on most subjects can be located immediately by a logical use of the Classification of Subjects below. In case the reference sought is of an unusual character such that there is uncertainty as to the subject under which it might have been classified, this can usually be found quite quickly by the process of eliminating the sections and subjects under which it is quite improbable that it might have been listed. In case of doubt, a title has often been listed under a number of subjects.

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The References to Contemporary Papers on Acoustics are identified in each issue by the same decimal numbers listed below, and may be consulted for references in other journals than our own. In Volume 30 these references will be found on pages 88, 227, 484, 648, 886, and 1057.

Classification of Subjects

0. General, Unclassified

- 0.1 Errata
- 0.2 Conferences, Lectures, and Announcements, not of the Acoustical Society. (Started 1955.)
- 0.3 Nonacoustical Theories. (Started 1955.)
- 0.4 Nonacoustic Devices. (Started 1955.)

1. Acoustical Society of America

- 1.1 General, Unclassified
- 1.2 Constitution and Bylaws
- 1.3 History
- 1.4 Honorary Members
- 1.5 Meetings
- 1.6 Members and Membership Lists
- 1.7 Committee Activities. (Started 1956.)

2. Architectural Acoustics

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- 2.4 Sound Absorption, Theory and Methods of Measurement of. (See also 2.5.)
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3. Books, Bibliographies, and Surveys

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4. The Ear and Hearing

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- 4.2 Anatomy and Physiology of the Ear
- 4.3 Binaural Hearing. Localization
- 4.4 Deafness. (See also 5.5.)
- 4.4.5 Auditory Fatigue. (Started 1955.)

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- 4.4.5 Auditory Fatigue. (Started 1955.)

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11.3 Propagation of Sound. Absorption during Propagation. Velocity of Sound. Second Sound. Refraction. Wavelength. Doppler Effect. (See also 10.4, 10.5, 10.6, 13.2, and 13.3.)
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—— **and B. B. Bauer.** Phonograph pickups for stereophonic record reproduction. **30**: 697(T)—1958
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0.1 Errata

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0.2 Conferences, Lectures, and Announcements, not of the Acoustical Society. (Started 1955.)

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Problems of noise. **30**: 991—1958

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0.3 Nonacoustical Theories. (Started 1955.)

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Some remarks on four-pole parameters. G. S. Bennett. **30**: 83—1958

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Analytic geometry of three dimensions. George Salmon. (Reviewed by R. B. Lindsay.) **30**: 1057—1958

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Mathematical tables of elementary and some higher mathematical functions. Herbert Bristol Wright. (Reviewed by R. B. Lindsay.) **30**: 1057—1958

The principles of semantics. Stephen Ullmann. (Reviewed by R. B. Lindsay.) **30**: 885—1958

The theory of aerial sound, 1687–1788. Clifford Truesdell. (Reviewed by R. B. Lindsay.) **30**: 885—1958

1. Acoustical Society of America

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Editor's comment on papers submitted for publication in JASA. **30**: 881—1958

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The Fifty-Fifth Meeting of the Acoustical Society of America. **30**: 879—1958

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Committee on publication policies of the Society. **30**: 86—1958
News letter to Acoustical Society members interested in musical acoustics (report of the technical Committee on Musical Acoustics). **30**: 1050—1958
Papers on architectural acoustics. **30**: 156—1958
Preliminary Report of the Committee on Publication Policy of the Acoustical Society of America. **30**: 367—1958
Report of Committee on Underwater Acoustics of the Acoustical Society of America. **30**: 482—1958
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2. Architectural Acoustics

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Attenuation of sound in lined air ducts. A. J. King. **30**: 505—1958
Experiments on the influence of flow on sound attenuation in absorbing ducts. Erwin Meyer, Fridolin Mechel, and Günther Kurtze. **30**: 165—1958
Output of a sound source in a reverberation chamber and other reflecting environments. Richard V. Waterhouse. **30**: 4—1958
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Recent experiences with soundproof openings. H. V. Munchhausen. **30**: 679—1958
Spatial fluctuations of steady-state sound fields in rooms. Manfred R. Schroeder. **30**: 679—1958

2.2 Auditorium Design. (See also 7.6.)
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Applications of the Monte Carlo method to architectural acoustics. John C. Allred and Albert Newhouse. **30**: 1—1958
Applications of the Monte Carlo method to architectural acoustics. II. John C. Allred and Albert Newhouse. **30**: 903—1958
Studio for listening tests. Ladislav O. Dolanský. **30**: 175—1958

2.3 Studies of Existing Auditoria
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Acoustical design of the Alberta Jubilee auditoria. T. D. Northwood and E. J. Stevens. **30**: 507—1958
ABSTRACTS
Concert hall design. Leo L. Beranek. **30**: 679—1958

2.4 Sound Absorption, Theory and Methods of Measurement of. (See also 2.5.)
PAPERS
Applications of the Monte Carlo method to architectural acoustics. John C. Allred and Albert Newhouse. **30**: 1—1958

2.5 Materials for Sound Absorption. Values of Absorption Coefficients and Acoustic Impedances
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On the relation between the reverberant sound absorption coefficient and the normal incidence absorption coefficient of fibrous materials. Masaru Koyasu. **30**: 1163—1958
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Acoustic absorption coefficients for hairless mice measured in the cylindrical reverberation chamber. Eugene Ackerman, Robert W. Farwell, Fujio Oda, and Adam Anthony. **30**: 1107—1958

2.7 Reverberation and Echoes. (See also 2.3, 2.4, 2.8, 2.9, and 2.10.)
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Reverberation formula which seems to be more accurate with nonuniform distribution of absorption. Dariel Fitzroy. **30**: 679—1958
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Reverberation times: initial design and final observations. T. D. Northwood and E. J. Stevens. **30**: 509–1958
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Reverberation method and apparatus. Joseph Raymond Butts. **30**: 160—1958

2.8 Reverberation Measuring Instruments. (See also 2.7 and 5.15.)

SUBTITLES
Asymmetrical reverberation-chamber shape. The volume is 48.9±0.1 liters. Eugene Ackerman, Robert W. Farwell, Fujio Oda, and Adam Anthony. **30**: 1108—1958
Cross section of cylindrical reverberation chamber. The diameter is 10 in. Eugene Ackerman, Robert W. Farwell, Fujio Oda, and Adam Anthony. **30**: 1106—1958
Measurement of reverberation time. Ladislav O. Dolanský. **30**: 177—1958

2.9 Sound Transmission, Theory and Methods of Measurement of. (See also 2.10.)

PAPERS
New airborne sound transmission loss measuring facility at Riverbank. R. L. Richards. **30**: 999—1958

2.10 Sound Insulating Structures. Values of Transmission Coefficients

ABSTRACTS
Field survey of the noise reduction of folding partitions. Howard C. Hardy and James E. Ancell. **30**: 668—1958
Transmission loss of some common partitions. Bill G. Watters. **30**: 668—1958

3. Books, Bibliographies, and Surveys

3.1 Books and Book Reviews
Analytic geometry of three dimensions. George Salmon. (Reviewed by R. B. Lindsay.) **30**: 1057—1958
Bibliography on shock and shock excited vibrations (Volume I). J. N. Brennan, Editor. (Reviewed by Horace M. Trent.) **30**: 370—1958
D-c circuit analysis. Alexander Schure. **30**: 1056(T)—1958
Der Ultraschall. Nachtrag zum Literaturverzeichnis der 1954 erschienenen 6. Auflage. Ludwig Bergmann. (Reviewed by R. B. Lindsay.) **30**: 158—1958
Dictionary of physics and allied sciences (Volume I) German-English. Charles J. Hyman, Editor. (Reviewed by R. B. Lindsay.) **30**: 885—1958
Electronic measuring instruments. E. H. W. Banner. (Reviewed by J. E. White.) **30**: 994—1958
Electron-tube circuits. Samuel Seely. (Reviewed by W. Richard Stroh.) **30**: 587—1958
Elements of tape recorder circuits. Herman Burstein and Henry C. Pollak. (Reviewed by Harry F. Olson.) **30**: 370—1958
Engineering vibrations. L. S. Jacobsen and R. S. Ayre. (Reviewed by George J. O'Hara.) **30**: 1170—1958
Fluid mechanics. Victor L. Streeter. (Reviewed by Mark Harrison.) **30**: 993—1958
Foundations of information theory. Amiel Feinstein (Reviewed by R. B. Lindsay.) **30**: 994—1958
Handbook of noise control. Cyril M. Harris, Editor. (Reviewed by Hans L. Oestreicher.) **30**: 810—1958
High fidelity: a bibliography of sound reproduction. K. J. Spencer. (Reviewed by Harry F. Olson.) **30**: 1170—1958
High fidelity simplified. Third edition. Harold Weiler. (Reviewed by Harry F. Olson.) **30**: 370—1958
High quality sound reproduction. James Moir. (Reviewed by Floyd K. Harvey.) **30**: 1169—1958
Industrial deafness. Joseph Sataloff. (Reviewed by Kenneth N. Stevens.) **30**: 87—1958
Introduction to electrical applied physics. N. F. Astbury. (Reviewed by Harry F. Olson.) **30**: 226—1958
Introduction to Fourier analysis and generalized functions. M. J. Lighthill. (Reviewed by R. B. Lindsay.) **30**: 994—1958
Introductory physics: an historical approach. Herbert Priestly. (Reviewed by Carl E. Adams.) **30**: 586—1958
Leitfaden zur Berechnung von Schallvorgängen. H. Stenzel and O. Brosze. (Reviewed by Miguel C. Junger.) **30**: 1169—1958
Magnetic tape recording. H. G. M. Spratt. (Reviewed by Harry F. Olson.) **30**: 1170—1958
Man and his physical world. Dwight E. Gray and John W. Coutts. (Reviewed by F. E. White.) **30**: 587—1958
Mathematical tables of elementary and some higher mathematical functions. Herbert Bristol Wright. (Reviewed by R. B. Lindsay.) **30**: 1057—1958
Mechanics. Alexander Efron. **30**: 1056(T)—1958
Nuclear energy. Alexander Efron. (Reviewed by Joseph L. Hunter.) **30**: 1056—1958
Physics and mathematics in electrical communications. James Owen Perrine. (Reviewed by R. D. Fay.) **30**: 811—1958
Piezoelectricity (Selected Engineering Reports, Post Office Research Station). His Majesty's Stationery Office. (Reviewed by Walter G. Cady.) **30**: 812—1958
Praktische Akustik. W. Meyer-Eppler, Editor. (Reviewed by R. B. Lindsay.) **30**: 885—1958
Relaxation spectrometry. E. G. Richardson. (Reviewed by R. B. Lindsay.) **30**: 884—1958
Repairing HiFi systems. David Fidelman. (Reviewed by Harry F. Olson.) **30**: 370—1958
Russian-English glossary of acoustics and ultrasonics. Consultants Bureau, Inc. (Reviewed by Robert T. Beyer.) **30**: 647—1958
Sound. Alexander Efron. (Reviewed by W. L. Nyborg.) **30**: 369—1958
Summary Report of the Group Hearing Aid Project to the Committee on Problems of Deafness of the National Research Council (October 1957). C. V. Hudgins, S. R. Silverman, and C. E. Harrison. (Reviewed by Ann M. Mulholland.) **30**: 811—1958
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The structure of American English. W. Nelson Francis. (Reviewed by Kenneth N. Stevens.) **30**: 1169—1958
The theory of aerial sound, 1687–1788. Clifford Truesdell. (Reviewed by R. B. Lindsay.) **30**: 885—1958
Understanding hi-fi circuits. Norman H. Crowhurst. (Reviewed by Harry F. Olson.) **30**: 226—1958
Vibration control. John N. MacDuff and John R. Currel. (Review by Horace M. Trent.) **30**: 884—1958

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3.3 Patents
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3.4 Surveys, Historical and Philosophical Literature. (Started 1954.)

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Electroacoustics and transducers. F. V. Hunt. **30**: 375—1958
Noise, shock and vibration. R. O. Fehr. **30**: 385—1958
Physiological and psychological acoustics. Merle Lawrence. **30**: 394—1958
Properties of matter. Solids. R. W. Morse. **30**: 380—1958
Properties of matter. The liquid state. Theodore Litovitz. **30**: 383—1958
Sonic engineering. T. F. Hueter. **30**: 378—1958
Speech and communication. George A. Miller. **30**: 397—1958

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Introductory physics: an historical approach. Herbert Priestly. (Reviewed by Carl E. Adams.) **30**: 586—1958
Man and his physical world. Dwight E. Gray and John W. Coutts (Reviewed by F. E. White.) **30**: 587—1958

4. The Ear and Hearing

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Difference limen for tone diminution. Roger E. Kirk. **30**: 915—1958

Effect of auditory cue on discrimination of auditory stimuli. Florence A. Veniar. **30**: 1079—1958

Funneling in the nervous system and its role in loudness and sensation intensity on the skin. G. v. Békésy. **30**: 399—1958

Maintenance of alertness by a loud auditory signal. Irwin Pollack and P. Robert Knaff. **30**: 1013—1958

On the propagation velocity of sound in the human skull. J. Zwislocki. **30**: 186—1958

Physiological and psychological acoustics. Merle Lawrence. **30**: 394—1958

Proposed laboratory standard of normal hearing. John F. Corso. **30**: 14—1958

Signal detection as a function of frequency ensemble. I. Florence A. Veniar. **30**: 1020—1958

Signal detection as a function of frequency ensemble. II. Florence A. Veniar. **30**: 1075—1958

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Facets of explorations in tonal memory. Cyril C. O'Brien. **30**: 362—1958

Threshold of hearing of a ring-billed gull. G. J. Thiessen. **30**: 1047—1958

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Effect of intensity duration and spectrum on the perception of two-element auditory sequences. T. T. Sandel and K. N. Stevens. **30**: 674—1958

Information transmission with elementary auditory displays. William H. Sumby, Davis Chambliss, and Irwin Pollack. **30**: 674—1958

Maintenance of alertness by a loud auditory signal. P. Robert Knaff and Irwin Pollack. **30**: 674—1958

Mechanical impedance of the forehead and mastoid. Ernest L. Smith, Edith L. R. Corliss, and June Eanet. **30**: 695—1958

On sequential decisions by human observers in a signal detection problem. John A. Swets, Mary McKey, and David M. Green. **30**: 673—1958

Reproduction and identification of elements of auditory displays. Lawrence Johnson and Irwin Pollack. **30**: 673—1958

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Foundations of information theory. Amiel Feinstein. (Reviewed by R. B. Lindsay.) **30**: 994—1958

4.2 Anatomy and Physiology of the Ear

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Changes in cochlear endolymphatic oxygen availability, action potential, and microphonics during and following asphyxia, hypoxia, and exposure to loud sounds. G. A. Misrahy, E. W. Shinabarger, and J. E. Arnold. **30**: 701—1958

Effects of localized hypoxia on the electrophysiological activity of cochlea of the guinea pig. G. A. Misrahy, B. R. DeJonge, E. W. Shinabarger, and J. E. Arnold. **30**: 705—1958

Endolymphatic oxygen tension in the cochlea of the guinea pig. George A. Misrahy, Kenneth M. Hildreth, Edward W. Shinabarger, Leland C. Clark, and Edward A. Rice. **30**: 247—1958

Genesis of endolymphatic hypoxia following acoustic trauma. G. A. Misrahy, J. E. Arnold, J. R. Mundie, E. W. Shinabarger, and V. P. Garwood. **30**: 1082—1958

Harmonic distortion in cochlear models. Juergen Tonndorf. **30**: 929—1958

Localization of aural harmonics along the basilar membrane of guinea pigs. Juergen Tonndorf. **30**: 938—1958

Synchrony of neural activity in electric responses evoked by transient acoustic stimuli. Moise H. Goldstein, Jr., and Nelson Y.-S. Kiang. **30**: 107—1958

ABSTRACTS

Continuous recordings of endolymphatic oxygen tension, action potential, and microphonics. George Misrahy, Edward Shinabarger, Bud DeJonge, and James Arnold. **30**: 688—1958

Effect of intracochlear injections of glucose-glucose oxidose on the dc potential, microphonics, and action potential of the cochlea of guinea pigs. George Misrahy, Bud DeJonge, and Edward Shinabarger. **30**: 688—1958

Evidence from anatomical studies. Grant L. Rasmussen. **30**: 688(T)—1958

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Mapping of the electrical response of the cat's auditory cortex to some amplitude modulated signals. Arnold M. Small, Jr. **30**: 688—1958

Vibratory energy and the biochemistry of the acoustic nerve. Z. D. Angeluscheff. **30**: 689—1958

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On the minimum audible angle. A. W. Mills. **30**: 237—1958

Stereophonic listening and speech intelligibility against voice babble. Irwin Pollack and J. M. Pickett. **30**: 131—1958

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Binaural localization and space-frequency equivalence. Winstock E. Kock. **30**: 222—1958

Detecting a signal in noise. Lloyd A. Jeffress, Hugh C. Blodgett, and Charles L. Wood, III. **30**: 802—1958

Do meeting neuronic fluxes add into sums or do they multiply into products? Max F. Meyer. **30**: 362—1958

Medial geniculate body—a disavowal. Lloyd A. Jeffress. **30**: 802—1958

On the mechanism of binaural fusion. E. E. David, Jr., N. Guttman, and W. A. van Bergeijk. **30**: 801—1958

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4.4 Deafness. (See also 5.5.)

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Hearing level, hearing loss, and threshold shift. Hallowell Davis, Gordon D. Hoople, and Horace O. Parrack. **30**: 478—1958

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Industrial deafness. Joseph Sataloff. (Reviewed by Kenneth N. Stevens.) **30**: 87—1958

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Nation-wide study of the conservation of hearing in children. **30**: 368—1958

4.4.5 Auditory Fatigue. (Started 1955.)
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Dependence of temporary threshold shift at 4 kc on intensity and time. W. D. Ward, A. Glorig, and D. L. Sklar. **30**: 944—1958
Genesis of endolymphatic hypoxia following acoustic trauma. G. A. Misrahy, J. E. Arnold, J. R. Mundie, E. W. Shinabarger, and V. P. Garwood. **30**: 1082—1958
Intensity and duration of noise exposure and temporary threshold shifts. Walter Spieth and W. J. Trittipoe. **30**: 710—1958
Residual effects of low noise levels on the temporary threshold shift. William J. Trittipoe. **30**: 1017—1958
Temporary threshold elevation produced by continuous and "impulsive" noises. Walter Spieth and William J. Trittipoe. **30**: 523—1958
Temporary threshold shift and masking for noise of uniform spectrum level. James D. Miller. **30**: 517—1958
Temporary threshold shift as a function of noise exposure level. W. J. Trittipoe. **30**: 250—1958
ABSTRACTS
Auditory adaptation in noise. H. N. Wright. **30**: 696—1958
System for the measurement of noise exposure. Jerome R. Cox. **30**: 674—1958
4.5 Instruments Relating to Hearing, and for the Testing of Hearing. (See also 5.5.)
ABSTRACTS
Variations in audio oscillations amplitude. R. R. McPherson. **30**: 673—1958
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Body contacting inertia reaction electromechanical transducing devices. William F. Knauert. **30**: 1171—1958
Book with sound track speaking head guided by opposite page. Walter R. Hicks. **30**: 897—1958
Close-fitting helmet. Walter S. Finken and Jackson A. Aileo. **30**: 159—1958
Combined microphone and telephone pickup for hearing aids. Frank T. Spera. **30**: 897—1958
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Hearing aid amplifier. Satoshi T. Tado. **30**: 995—1958
Hearing aid and spectacles combination. Edward M. Borg. **30**: 897—1958
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Magnasonic hearing-aid device. John R. Randolph and John L. Huff. **30**: 1171—1958
Magnetic insert earphone and inserts therefor. William F. Knauert. **30**: 159—1958
Microphone mounting for hearing aids. John J. Kojis and William C. Wilcox. **30**: 995—1958
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Summary Report of the Group Hearing Aid Project to the Committee on Problems of Deafness of the National Research Council (October 1957). C. V. Hudgins, S. R. Silverman, and C. E. Harrison. (Reviewed by Ann M. Mulholland.) **30**: 811—1958
4.6 Loudness, Threshold Determinations
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Advantages of the discriminability criterion for a loudness scale. W. R. Garner. **30**: 1005—1958
Comparison of hearing thresholds in air and in water. Walter N. Wainwright. **30**: 1025—1958
Dependence of temporary threshold shift at 4 kc on intensity and time. W. D. Ward, A. Glorig, and D. L. Sklar. **30**: 944—1958
Effect of the transmission characteristic of the ear on the threshold of audibility. J. Zwislocki. **30**: 430—1958
Intensity and duration of noise exposure and temporary threshold shifts. Walter Spieth and W. J. Trittipoe. **30**: 710—1958
Loudness of periodically interrupted white noise. Irwin Pollack. **30**: 181—1958
Monaural temporary threshold shift following monaural and binaural exposures. Ira J. Hirsh. **30**: 912—1958
On the effect of practice and motivation on the threshold of audibility. J. Zwislocki, F. Maire, A. S. Feldman, and H. Rubin. **30**: 254—1958
Proposal for an explanation of limens of loudness. J. R. Pierce. **30**: 418—1958
Proposed laboratory standard of normal hearing. John F. Corso. **30**: 14—1958
Residual effects of low noise levels on the temporary threshold shift. William J. Trittipoe. **30**: 1017—1958
Temporary threshold elevation produced by continuous and "impulsive" noises. Walter Spieth and William J. Trittipoe. **30**: 523—1958
Temporary threshold shift and masking for noise of uniform spectrum level. James D. Miller. **30**: 517—1958
Temporary threshold shift as a function of noise exposure level. W. J. Trittipoe. **30**: 250—1958
LETTERS TO THE EDITOR
Early work on explanation of limens of loudness. J. R. Pierce. **30**: 1047—1958
Hearing level, hearing loss, and threshold shift. Hallowell Davis, Gordon D. Hoople, and Horace O. Parrack. **30**: 478—1958
Loudness and loudness level. Gino G. Sacerdote. **30**: 1165—1958
Notes on a technique for the determination of high-frequency hearing thresholds. Howard J. Page and J. Rutschmann. **30**: 1164—1958
Threshold of hearing of a ring-billed gull. G. J. Thiessen. **30**: 1047—1958
ABSTRACTS
Correlation between thresholds of hearing by bone and by air conduction for normal individuals. Edith L. R. Corliss and Ernest L. Smith. **30**: 695—1958
Effects of age and sex on pure-tone thresholds. John F. Corso. **30**: 695—1958
Latent effects of low noise levels on the temporary threshold shift (TTS). William J. Trittipoe. **30**: 695—1958
Re-evaluation of Weber's law for pure tones. Wilson P. Tanner, Jr. **30**: 673—1958
Relations among intensity, time, and temporary threshold shift. W. D. Ward, A. Glorig, and D. L. Sklar. **30**: 695—1958
Relative loudness of sinusoidal and square wave tones. Lawrence R. Zeitlin. **30**: 674—1958
Some relations between normal hearing for pure tones and for speech. James Jerger and Raymond Carhart. **30**: 669—1958
Temporary auditory threshold shift produced by exposure to broad band noise. Aram Glorig, William Grings, D. E. Wheeler, and Anne Summerfield. **30**: 695—1958
4.7 Masking. (See also 5.5.)
PAPERS
Binaural effects in remote masking. Ira J. Hirsh and Michel Burgeat. **30**: 827—1958
Definitions of d' and η as psychophysical measures. Wilson P. Tanner, Jr., and T. G. Birdsall. **30**: 922—1958
Detection of multiple component signals in noise. David M. Green. **30**: 904—1958
Intensive determinants of remote masking. Robert C. Bilger. **30**: 817—1958
Masking of English words by prolonged vowel sounds. John J. O'Neill and John J. Dreher. **30**: 539—1958
Masking of speech by noise at high sound levels. Irwin Pollack and J. M. Pickett. **30**: 127—1958
What is masking? Wilson P. Tanner, Jr. **30**: 919—1958

LETTERS TO THE EDITOR
Detecting a signal in noise. Lloyd A. Jeffress, Hugh C. Blodgett, and Charles L. Wood, III. **30**: 802—1958
ABSTRACTS
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Detection of noise signals in a masking noise. David M. Green. **30**: 673—1958
Intensive determinants of remote masking. Robert C. Bilger and Ira J. Hirsh. **30**: 696—1958
PATENTS
Method and apparatus for signal presentation. Walton Graham. **30**: 1069—1958

4.9 Pitch

PAPERS
Creation of pitch through binaural interaction. Elliot M. Cramer and W. H. Huggins. **30**: 413—1958
On Ax and ABX limens. J. R. Pierce and E. N. Gilbert. **30**: 593—1958

4.11 Theories of Hearing

PAPERS
Effect of auditory cue on discrimination of auditory stimuli. Florence A. Veniar. **30**: 1079—1958
Funneling in the nervous system and its role in loudness and sensation intensity on the skin. G. v. Békésy. **30**: 399—1958
Harmonic distortion in cochlear models. Juergen Tonndorf. **30**:929—1958
Localization of aural harmonics along the basilar membrane of guinea pigs. Juergen Tonndorf. **30**: 938—1958
Signal detection as a function of frequency ensemble. I. Florence A. Veniar. **30**: 1020—1958
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ABSTRACTS
Theory of temporal auditory integration. J. Zwislocki. **30**: 688—1958

4.14 Ear Protectors, Earplugs. (Started 1956.)

PAPERS
Improved cushion for ear defenders. E. A. G. Shaw and G. J. Thiessen. **30**: 24—1958
ABSTRACTS
On the behavior of ear protection devices below 1000 cps. A. L. Witchey. **30**: 675—1958
Pressure gradient-to-pressure, mechanical sound transducer. T. F. W. Embleton and G. J. Thiessen. **30**: 675—1958
PATENTS
Ear defender. Edgar Albert George Shaw and George Jacob Thiessen. **30**: 158—1958
Earplug. Josef J. Zwislocki. **30**: 158—1958
Earplugs. Rose Genzer. **30**: 158—1958

5. Applied Acoustics, Instruments and Apparatus. (***See also 2.8, 4.5, 9.6, 10.3, 12.3, 12.3p, 12.3Z, 13.11, 13.11n, and 13.11t.***)

5.1 General, Unclassified

PAPERS
Experiments on cm waves in analogy with acoustic techniques made in Göttingen. Erwin Meyer. **30**: 624—1958
Instrumentation for study of propagation of sound over ground. Francis M. Wiener, Kenneth W. Goff, and David N. Keast. **30**: 860—1958
Intelligibility at high voice levels and the use of a megaphone. J. M. Pickett and Irwin Pollack. **30**: 1100—1958
Reflectoscope angle probe with an indicator of the degree of coupling to the test object. A. Lutsch. **30**: 964—1958
Reverberation chamber study of the sound power output of subsonic air jets. Richard V. Waterhouse and Raymond D. Berendt. **30**: 114—1958
Ultrasonic reflectoscope with an indicator of the degree of coupling between transducer and object. A. Lutsch. **30**: 544—1958
PATENTS
Acoustic jet engine with flow deflection fluid pumping characteristics. Albert G. Bodine, Jr. **30**: 98—1958
Acoustic wave controlling means for suppressing detonation in internal combustion engines. Albert G. Bodine, Jr. **30**: 995—1958
Automatic calibrating system for pressure transducers. Edward L. Amonette and George W. Rodgers. **30**: 496—1958
Automatic sphygmomanometer. Saul R. Gilford. **30**: 1172—1958
Chime signal. Joseph McEvoy. **30**: 371—1958
Chime signal device. Michael Roseman. **30**:371—1958
Color interpretation system. Lawrence J. Giacoletto. **30**: 159—1958
Combination megaphone and bell. Homer D. Hendricks. **30**: 496—1958
Generator for sonic and ultrasonic vibrations. Raymond Marcel Gut Boucher. **30**: 159—1958
Impulse motored sounding ornaments. Agapito P. Baldumán. **30**: 588—1958
Listening device for detecting fluid flows. Jean Piochet. **30**: 1172—1958
Magnetostrictive type printing device. George C. Devol. **30**: 371—1958
Signal horn. Roy D. Buell. **30**: 496—1958
Sonic burner heat engine with acoustic reflector for augmentation of the second harmonic. Albert G. Bodine, Jr. **30**: 98—1958
Sonic method for powdered metal molding. Albert G. Bodine, Jr. **30**: 496—1958
Sound actuated dancing doll. Jack Di Franco. **30**: 496—1958
Sound damper for signalling devices. Max Amann, Wolfgang Gruger, and Robert Scholpp. **30**: 371—1958
Sounding toy. Frank M. Boring. **30**: 1172—1958
Sound intensity measurement. Don R. Pardue and Albert L. Hedrick. **30**: 995—1958
Sound pressure receiver. Hans Grigull. **30**: 235—1958
Two-note solenoid operated chime mechanism. James W. Christy and Joseph McEvoy. **30**: 371—1958
Ultrasonic generator. Ole E. Wold. **30**: 1172—1958
Ultrasonic transmitter. Robert Adler. **30**: 1171—1958
Ultrasonic transmitter. Robert C. Ehlers and Clarence W. Wandrey. **30**: 1172—1958
Vibratory impulse generator for golf club. Louis G. La Ferte. **30**: 1172—1958
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Electronic measuring instruments. E. H. W. Banner. (Reviewed by J. E. White.) **30**: 994—1958
Electron-tube circuits. Samuel Seely. (Reviewed by W. Richard Stroh.) **30**: 587—1958
Introduction to electrical applied physics. N. F. Astbury. (Reviewed by Harry F. Olson.) **30**: 226—1958
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Praktische Akustik. W. Meyer-Eppler, Editor. (Reviewed by R. B. Lindsay.) **30**: 885—1958
Sound. Alexander Efron. (Reviewed by W. L. Nyborg.) **30**: 369—1958
NEWS
Shock wave photography of large subjects in daylight. **30**: 992—1958

5.2 Amplifiers and Attenuators

PATENTS
Feedback amplifiers. Charles A. Wilkins and Herbert W. Sullivan. **30**: 1172—1958

Reduction of distortion in amplifying systems. Robert Ruben Perlman. **30**: 159—1958

BOOK REVIEWS

Understanding hi-fi circuits. Norman H. Crowhurst. (Reviewed by Harry F. Olson.) **30**: 226—1958

5.3 Acoustic Impedance Measurement. (See also 11.4 and 12.3Z.)

PAPERS

New technique for measuring transducer blocked impedance. Gerald A. Sabin. **30**: 146—1958

LETTERS TO THE EDITOR

Change in acoustic impedance detected by nuclear induction. D. A. Jennings and W. H. Tanttila. **30**: 154—1958

PATENTS

Acoustic resistor. Gerrit Schenkel and Jacob Izaak de Haan. **30**: 588—1958

5.4 Analyzers and Filters, Acoustic and Electric. Oscillographs. (See also 5.15 and 12.3f.)

PAPERS

Averaging time and data-reduction time for random vibration spectra. I. Charles T. Morrow. **30**: 456—1958

Piezo-optic frequency analyzer. Tomoya Ogawa. **30**: 46—1958

ABSTRACTS

Audio spectrum analyzer employing Gaussian filters. Cyril M. Harris and Jacob Klapper. **30**: 687—1958

PATENTS

Doubly resonant filter. Winston E. Kock. **30**: 497—1958

Electromechanical filter. Leslie L. Burns, Jr. **30**: 497—1958

Electromechanical filter. Bernard Niederman and Stanley P. Lapin. **30**: 296—1958

Elimination of spurious response in an electromechanical filter. Melvin L. Doelz. **30**: 159—1958

Mechanical filters including rejectors. Leslie L. Burns, Jr. **30**: 1172—1958

Termination of mechanical vibratory systems. Walter van B. Roberts and Ralph W. George. **30**: 159—1958

5.5 Audiometers. (See also 4.4 and 4.5.)

ABSTRACTS

Effect of external sound fields on hearing tests in audiometric booths. James E. Ancell. **30**: 694—1958

5.5.1 Broadcasting

PATENTS

Monaural-binaural transmission of sound. Floyd K. Becker. **30**: 497—1958

5.7 Frequency Standards, Frequency Measuring and Recording Instruments

PATENTS

Mechanical generators of isochronous oscillations. Jean Chevallereau. **30**: 372—1958

Shock and vibration proof oscillator. Walter Kohlhagen. **30**: 660—1958

5.8 Loudspeakers, Horns. (See also 5.13, 5.17, and 5.18.)

PAPERS

Dynamic mechanical stability in the variable-reluctance and electrostatic transducers. Charles H. Sherman. **30**: 48—1958

Methods of generating high-intensity sound with loudspeakers for environmental testing of electronic components subjected to jet and missile engine noise. John K. Hilliard and Walter T. Fiala. **30**: 533—1958

New technique for measuring transducer blocked impedance. Gerald A. Sabin. **30**: 146—1958

On the attenuation of high amplitude waves of stable sawtooth form propagated in horns. Isadore Rudnick. **30**: 339—1958

Output of a sound source in a reverberation chamber and other reflecting environments. Richard V. Waterhouse. **30**: 4—1958

ABSTRACTS

Electroacoustic phase shift in loudspeakers. W. Richard Stroh. **30**: 687—1958

Method of improving acoustic transmission in folded horns. Richard W. Carlisle. **30**: 687—1958

SUBTITLES

Construction of acoustic dipole source. C. W. Horton and A. E. Sobey, Jr. **30**: 1096—1958

PATENTS

Acoustic horn assembly. William E. Glenn. **30**: 590—1958

Acoustic transducers. John E. Karlson. **30**: 661—1958

Artificial delay structure for compressional waves. Winston E. Kock. **30**: 497—1958

Blast-proof and submergence-proof sound reproducing device. Sidney E. Levy. **30**: 589—1958

Built-in sound system for home. Edward E. Shaffer. **30**: 589, 1173—1958

Collapsible megaphone. Charles R. Hooe. **30**: 497—1958

Corner horn. Warren A. Rice. **30**: 589—1958

Explosion proof acoustic device. Abraham L. Pittinger. **30**: 589—1958

High-frequency speaker baffle. Benjamin W. Lowell. **30**: 1172—1958

Horn for loudspeakers. Sidney E. Levy. **30**: 588—1958

Ionic triode speaker. Michael N. Halus and Stanley W. Holcomb. **30**: 661—1958

Loudspeaker assembly and system. George A. Brettell. **30**: 497—1958

Loudspeaker cabinet. Elmore D. Bosley. **30**: 589—1958

Loudspeaker cabinet including a horn. Edward J. Gately, Jr. **30**: 661—1958

Loudspeaker control system. Richard E. Wiles, Jr., and Brooks C. Noah. **30**: 160—1958

Loudspeaker diaphragms. Alfred H. Whiteley. **30**: 661—1958

Loudspeakers. Joseph B. Brennan. **30**: 661—1958

Loudspeaker structure. Harry F. Olson and John Preston. **30**: 661—1958

Loudspeaker system. Jordan J. Baruch and Henry C. Lang. **30**: 590—1958

Loudspeaker system. Norman C. Fulmer. **30**: 590—1958

Phonograph cabinet. Peter C. Goldmark. **30**: 590—1958

Reflex-type loudspeakers. Sidney E. Levy. **30**: 588—1958

Small extended-low-frequency-response loudspeaker enclosure. Ernest A. Tavares. **30**: 589—1958

Sound dispersion device with internal divergent acoustical lens. Fred A. Manley. **30**: 497—1958

Sound producers. Gustav Zeininger and Jörg Issler. **30**: 660—1958

Sound producing system. Ernest A. Tavares. **30**: 1173—1958

Sound radiator. Friedrich Wilhelm Müller. **30**: 589—1958

Sound translating devices. Edgar M. Villchur. **30**: 590—1958

Sound transmission and reproduction. Hans Maassen Schumann. **30**: 589—1958

Vibrator excited loudspeaker for toys. Raymond E. Smith. **30**: 98—1958

Voice coil for loudspeakers. Joseph A. Hassan. **30**: 590—1958

Wide-range loudspeaker. Samuel Bryan. **30**: 1172—1958

5.9 Microphones. Microphone Calibration Equipment and Techniques. (See also 5.18, 12.3p, and 13.11t.)

PAPERS

Dynamic mechanical stability in the variable-reluctance and electrostatic transducers. Charles H. Sherman. **30**:48—1958

New technique for measuring transducer blocked impedance. Gerald A. Sabin. **30**: 146—1958

Noise shield for microphones used in noisy locations. Mones E. Hawley. **30**: 188—1958

Pistonphone with differential piston. Josef Merhaut and Miroslav Vlček. **30**: 263—1958

ABSTRACTS

Comparison of mouth, ear, and contact microphones. John J. O'Neill. **30**: 682—1958

Electrostatic uniangular microphone. Harry F. Olson and John Preston. **30**: 686—1958

Lead-zirconium-titanite microphones for measurement of high noise levels. James W. Fitzgerald and Glenn E. Leydorf. **30**: 675—1958

Method for determining the stability, damping, and venting properties of condenser microphones. John J. Hlasnik. **30**: 686—1958

Microphone calibration facility. George W. Kamperman, Francis M. Wiener, and Clayton H. Allen. **30**: 687—1958

New headset-microphone for military use. Transducer Engineering Staff (RCA Electronics Products). **30**: 687—1958

New, lightweight, earphone and microphone for military use. F. K. Rogers, C. E. Farr, and R. M. Carrell. **30**: 687—1958

Stability of Bruel and Kjaer condenser microphones. T. F. W. Embleton and I. R. Dagg. **30**: 686—1958

Techniques for the measurement of high intensity sound. A. I. Dranetz and A. W. Orlacchio. **30**: 685—1958

SUBTITLES

Probe microphone. Erwin Meyer, Klaus Brendel, and Konrad Tamm. **30**: 1118—1958

Probe microphone. Erwin Meyer, Fridolin Mechel, and Günther Kurtze. **30**: 166—1958

PATENTS

Acoustic device. Fred B. Daniels. **30**: 662—1958

Dielectric amplifier employing ferroelectric materials. Warren P. Mason. **30**: 662—1958

Directional transducer. Winston E. Kock. **30**: 662—1958

Mechanical damping means for the diaphragms of microphones, speakers, and the like. Benjamin B. Bauer. **30**: 591—1958

Medical acoustic device. Pierre Reichardt. **30**: 1069—1958

Microphone. Donald H. Fryklund. **30**: 661—1958

Microphone. Isaac Heller. **30**: 662—1958

Microphone. David D. Meshirer and Dale Gulick. **30**: 661—1958

Microphone arrangement. Herbert Grosskopf and Hans Diestel. **30**: 591—1958

Microphone having controllable directional characteristics. Charles F. Paull and Maurice M. Palo. **30**: 591–1958

Microphones. George Raoul Pontzen and Robert Richard Clark. **30**: 160—1958

Sound control appliance for telephone transmitter. Harold D. Desbrow. **30**: 897—1958

Third-order pressure gradient responsive microphone. Mones E. Hawley. **30**: 591—1958

Third-order, pressure gradient responsive microphone. Vesper A. Schlenker. **30**: 662—1958

Unidirectional microphone. Harry F. Olson and John Preston. **30**: 591—1958

Voice reporting apparatus and the like. Harry Ungarsohn. **30**: 160—1958

5.10 Navigational Instruments Using Air Sound. Altitude Measuring Instruments. Sound Ranging (for Underwater Ranging see 13.11n). Geophysical Prospecting

PATENTS

Determining optimum conditions for seismic surveying. Karl Dyk and Moses B. Widess. **30**: 160—1958

Electronic automatic sequence timers. Thomas D. Nickerson. **30**: 1174—1958

Generating seismic waves. Harold M. Lang. **30**: 1174—1958

Junction pickup device. Lloyd R. Crump. **30**: 160—1958

Low noise level acoustic logging system. Gerald C. Summers. **30**: 995—1958

Magnetic record reproduction. Everett R. Sarratt. **30**: 996—1958

Measuring railroad tunnels by echo sounding. Hans Kietz. **30**: 99—1958

Method and apparatus for analysis of seismographic records. Burton D. Lee. **30**: 99—1958

Method and apparatus for multiplying and integrating variables. Raymond G. Piety. **30**: 1173—1958

Method and apparatus for pulsed acoustic well logging. Pat McDonald. **30**: 372—1958

Method of determining geological features. Willis O. Bazhaw. **30**: 99—1958

Method of surveying a bore hole. Edward L. Clifford, Vernon L. Redding, and James R. Ording. **30**: 1174—1958

Methods and apparatus for seismic exploration. Edward G. Schempf. **30**: 99—1958

Methods and apparatus for shifting seismic record timing pulses. Robert A. Manhart. **30**: 1173—1958

Multichannel recorder and reproducer with visual playback. Joseph J. Houghton and Louis W. Erath. **30**: 1173—1958

Seismic data producing system. Frank A. Angona. **30**: 995—1958

Seismic exploration and recording system. Sidney Kaufman. **30**: 1174—1958

Seismic prospecting. Joseph F. Bayhi. **30**: 372—1958

Seismic wave generation. Joseph D. Eisler and Daniel Silverman. **30**: 160—1958

Seismic wave generation by the weight-dropping technique. Raymond G. Piety. **30**: 372—1958

Self-sustaining oscillatory acoustic well logging. John K. Godbey. **30**: 1174—1958

Sonic air stream direction detector system. Victor H. Seliger. **30**: 1173—1958

Velocity well logging. Gerald C. Summers. **30**: 995—1958

5.12 Phase Meters

SUBTITLES

Double-gate circuit for phase comparison. H. J. McSkimin. **30**: 318—1958

5.13 Public Address Systems and Sound Picture Installations

PATENTS

Artificial stereophonic sound system. Skipwith W. Athey and Weld S. Carter, Jr. **30**: 996—1958

Circuit-arrangement for operating a loudspeaker installation. Hans Finlay. **30**: 161—1958

Control mechanism to coordinate a sound reproducer with a program source. Anthony Flan and Harold N. Miller. **30**: 996—1958

Intercommunication system. Adolph A. Baker, Jr. **30**: 100—1958

Paging machine. Richard R. Florac. **30**: 161—1958

Perspective sound apparatus. Clarence Robert Fine. **30**: 161—1958

Portable electric megaphone. Raphael Marcel Turpin and Marcel Achille Leger. **30**: 498—1958

Stereophonic reproduction of sound. Bruce P. Bogert. **30**: 498—1958

Stereophonic sound method and apparatus. Carl H. Becker. **30**: 498—1958

Stereophonic sound system and method. Carl H. Becker. **30**: 498—1958

Stereophonic sound transmission system. Robert M. Mikulyak. **30**: 1174—1958

Two-way loudspeaker intercommunication system. Gerhard Wildhagen. **30**: 99—1958

5.14 Rayleigh Disks

PAPERS

Acoustic radiation force. Haakon Olsen, Harald Wergeland, and Peter J. Westervelt. **30**: 633—1958

Radiation force on bodies in a sound field. Haakon Olsen, Werner Romberg, and Harald Wergeland. **30**: 69—1958
Torques due to acoustical radiation pressure. G. Maidanik. **30**: 620—1958

5.15 Sound Level Meters. Level Recorders. Sound Pressure Measurement. (See also 5.4.)

PAPERS
Portable instrument for locating noise sources in mechanical equipment. Donald A. Gilbrech and R. C. Binder. **30**: 842—1958

ABSTRACTS
Equipment and procedures for field measurements of aircraft noise and flight paths. D. N. Keast, W. E. Clark, and W. J. Galloway. **30**: 693—1958
Measurement of high intensity noise. George W. Kamperman. **30**: 675—1958

5.16 Sound Recording and Reproducing. General

PATENTS
Audio recording level indicator. Albert I. Aronson. **30**: 499—1958
Magnetic recording and reproducing circuits. Lloyd J. Bobb. **30**: 1175—1958
Methods of restoring phonograph records. Harry F. Olson and Herbert Belar. **30**: 498—1958
Recording, reproduction and transmission systems. Albert W. Ham. **30**: 498—1958
Tape-disk recorder. Robert M. Cain. **30**: 1175—1958
Telephone recording pickups. Ernest E. Hansen, Jr., and Lawrence M. Heineman. **30**: 662—1958
Vehicular electromagnetic sound recording and reproducing system. Abraham Goldenberg and Charles J. Wintergreen. **30**: 100—1958

BOOK REVIEWS
Elements of tape recorder circuits. Herman Burstein and Henry C. Pollak. (Reviewed by Harry F. Olson.) **30**: 370—1958
High fidelity: a bibliography of sound reproduction. K. J. Spencer. (Reviewed by Harry F. Olson.) **30**: 1170—1958
High fidelity simplified. Third edition. Harold Weiler. (Reviewed by Harry F. Olson.) **30**: 370—1958
High quality sound reproduction. James Moir. (Reviewed by Floyd K. Harvey.) **30**: 1169—1958
Repairing HiFi systems. David Fidelman. (Reviewed by Harry F. Olson.) **30**: 370—1958

5.16d Disk Recording (including cutting and embossing)

ABSTRACTS
Compatibility problems in stereophonic disk reproduction. B. B. Bauer and R. Snepvangers. **30**: 697(T)—1958
Phonograph pickups for stereophonic record reproduction. W. S. Bachman and B. B. Bauer. **30**: 697(T)—1958
Requirements of a record changer, component parts, and associated equipment for stereophonic record reproduction. Willard Faulkner. **30**: 697(T)—1958
RIAA Engineering Committee activities with respect to stereophonic disk records. W. S. Bachman. **30**: 696(T)—1958
Tracing distortion in stereophonic disk recordings. Murlan S. Corrington and T. Murakami. **30**: 697(T)—1958
Westrex stereodisk system. C. C. Davis and John G. Frayne. **30**: 696(T)—1958

PATENTS
Acoustic booths. Alfred Godfrey Imholf. **30**: 162—1958
Apparatus for transmitting mechanical vibrations. Machiel de Vries. **30**: 901—1958
Automatic or magazine phonograph apparatus. Christopher Collaro and Edward Thomas Humby. **30**: 900—1958
Automatic phonograph adjusting tool. Thomas H. Stoodley. **30**: 899—1958
Automatic recording and announcing machine. John O. McCarty. **30**: 996—1958
Automatic record player. Jacob T. Kunz. **30**: 100—1958
Center-drop phonograph spindle. Otto E. Wagenknecht. **30**: 996—1958
Combined sound and picture projecting apparatus. Maximilian Recht. **30**: 900—1958
Connecting the ends of sound record thermoplastic strips. Hugo Westerkamp. **30**: 996—1958
Device for sound recording. Karl Daniel. **30**: 899—1958
Electrical phonograph transducer with multiple styli. Clarence F. Jensen. **30**: 813—1958
Electric control device. Henry J. Schultz and Melvern Orton. **30**: 161—1958
Gramophone driving mechanism. Henry James Fortune. **30**: 996—1958
Magnetic pickup. Donald J. Baker. **30**: 901—1958
Multispeed driving mechanism for phonographs. Paul Scheller and Walter Oldenburg. **30**: 501—1958
Phonograph. Colin B. Dale. **30**: 900—1958
Phonograph pickup. Francis S. Harris. **30**: 813—1958
Phonograph pickups. Harry F. Klingener. **30**: 161—1958
Phonograph pickups. Richard W. Sabol. **30**: 500—1958
Phonograph record adaptor. James L. D. Morrison. **30**: 161—1958
Phonograph record device and method of making said device. Harry Warren Burdett, Jr. **30**: 898—1958
Phonograph record disk with speed control ring. Herman H. Mueller. **30**: 500—1958
Phonographs. Erik Wennerbo. **30**: 899—1958
Phonographs. Erik Wennerbo and Gosta Hedberg. **30**: 899—1958
Phonographs having record changing mechanism. Henry James Fortune. **30**: 499—1958
Phonograph stylus assembly. Roy Dally. **30**: 813—1958
Phonograph tone arm. William Blinoff, Lester C. Gutschick, Joseph E. Wrzepski, and Fred P. Venditti. **30**: 997—1958
Phonograph tone arm restoring mechanism. Ralph M. Like. **30**: 161—1958
Phonograph tone arms for pseudo-stereophonic sound reproduction. George A. Morrell, Jr. **30**: 814—1958
Phonograph turntable. Curtis R. A. Johnson. **30**: 499—1958
Phonograph turntable drives. Raymond C. Siebert. **30**: 900—1958
Phono-tape transport mechanism. James H. Sibbet. **30**: 901—1958
Pickup device for record players. Pasquale L. Cerone. **30**: 900—1958
Positive engagement interlocking phonograph record. Herman H. Mueller. **30**: 499—1958
Process for erasing record disks to remove sound tracks and background noises. Henry Allan Sherwood. **30**: 901—1958
Record changing control system for automatic record changers. Edward J. Sperber. **30**: 499—1958
Recording apparatus. James A. Miller. **30**: 161—1958
Recording apparatus. Horst Redlich and Werner Schmacks. **30**: 500—1958
Recording method using translating head and stylus. Harry A. Williams, John H. Sherwood, and Samuel A. Oliva. **30**: 813—1958
Retractable center disk for phonograph turntable. Robert N. Thomas. **30**: 501—1958
Slide-in stylus assemblies. Mark E. Woodworth. **30**: 813—1958
Sound reproducing apparatus. Lawrence Vincent Guest. **30**: 500, 901—1958
Sound translating apparatus. Frank L. Moore. **30**: 501—1958
Sound translating devices. Walter Christensen. **30**: 162—1958

Stylus and method of making same. Antonie W. Ploegsma. **30**: 813—1958
Stylus-holding chucks for phonograph pickup cartridges. Maurice Palo. **30**: 499—1958
Switching mechanism for a gramophone. Jan van der Heem. **30**: 899—1958
Tone arm balancing means for automatic interlocking dual phonograph record player. Herman H. Mueller. **30**: 501—1958
Tone arm constructions for phonographs. Earl D. Boisselier and Otto Felix. **30**: 813—1958
Tone arm needle assembly for automatic interlocking dual phonograph record player. Herman H. Mueller. **30**: 812—1958
Tone arm with a cutting and playback needle. Walter C. Hironimus. **30**: 161—1958
Transducer. Clarence F. Jensen. **30**: 662—1958
Turntable mounting for automatic interlocking dual phonograph record player. Herman H. Mueller. **30**: 501—1958

5.16f Film Recording (by photographic means)

PATENTS

Plural control track system. Waldon O. Watson. **30**: 1175—1958
Sound film recording system. John H. Jacobs. **30**: 814—1958
Stereoscopic picture and stereophonic sound systems. William A. Mueller. **30**: 814—1958

5.16m Magnetic Recording

PATENTS

Arrangement for sound recording and reproduction from a magnetizable disk. Arne Bergne. **30**: 663—1958
Audio tape repeater cartridge. James Emery Nash and William L. Gramer. **30**: 997—1958
Capstan for magnetic recorders. James R. Hall. **30**: 900—1958
Continuous magnetic tape and cartridge. Emil Tiger. **30**: 1176—1958
Dynamagnetic pickup system. Edward C. Schurch and Ferber R. Schleif. **30**: 898—1958
Electromagnetic transducer head. Marvin Camras. **30**: 897—1958
Electromagnetic transducer mounting. Charles M. Taris. **30**: 897—1958
Endless magnetic tape cartridge and recording playback instrument mounting same. George H. Eash. **30**: 1176—1958
Flutter measurement. Charles H. Chandler. **30**: 1175—1958
Hum bucking magnetic recording transducing heads. Semi Joseph Begun and Alfred P. Dank. **30**: 1175—1958
Indexing and selector device for magnetic tape recorders. Raymond Scott. **30**: 1176—1958
Knee action pressure plate for magnetic tape recorder. William H. Lyon. **30**: 898—1958
Magnetic compression method. Dorothy L. Blaney. **30**: 663—1958
Magnetic compression system. Dorothy L. Blaney. **30**: 663—1958
Magnetic disk scanning device with channel selector for concentric circular track scanning. Harold F. May. **30**: 897—1958
Magnetic head assemblies. Roland A. Lynn. **30**: 663—1958
Magnetic head for recorder and reproducer. William D. Moehring and Charles F. Murphy. **30**: 997—1958
Magnetic recording. Bruce Roberts. **30**: 663—1958
Magnetic recording and reproducing apparatus. John J. Hoehn and Fielding B. Hills. **30**: 1177—1958
Magnetic recording and reproducing device. Harry Malbon and George Warwick Fox. **30**: 1178—1958
Magnetic recording apparatus. Edward Schroter. **30**: 898—1958
Magnetic recording head. Robert M. Ashby, Avard F. Fairbanks, and Willoughby M. Cady. **30**: 997—1958
Magnetic recording head. Leslie C. Merrill. **30**: 998—1958
Magnetic recording head mounting apparatus. Raymond Scott. **30**: 1177—1958
Magnetic recording method. John Hays Hammond, Jr., and Ellison S. Purington. **30**: 1176—1958
Magnetic recording system. Bruce Roberts. **30**: 1177—1958
Magnetic sound recording and reproducing device. Willy Müller. **30**: 1176—1958
Magnetic tape recorders. Lazlo Namenyi-Katz. **30**: 997—1958
Magnetic tape recording and playback machine. Andrew A. Gedde and John S. Moyer. **30**: 1177—1958
Magnetic transducer. Le Roy W. Ferber. **30**: 1177—1958
Magnetic transducer assembly. Robert V. Muffley. **30**: 997—1958
Magnetic transducer head. George B. Greene. **30**: 998—1958
Means and techniques for visually indicating editing position on film. Volney F. Morin. **30**: 814—1958
Means for automatically coding and decoding a magnetic tape. John H. Hickey. **30**: 1175—1958
Means for erasing a magnetic record. Charles M. Taris and Frank J. Woolam. **30**: 663—1958
Method and apparatus of producing variable area magnetic records. Ralph B. Atkinson and Steven G. Ellis. **30**: 591—1958
Method and device for providing motion picture films with a magnetic sound track. Heinz Thiele. **30**: 372—1958
Phono-tape transport mechanism. James H. Sibbet. **30**: 901—1958
Production of magnetic sound recording tape. William C. Speed. **30**: 897—1958
Recorder controls. Francis P. Keiper. **30**: 1175—1958
Recorder-reproducer winding mechanism. David J. Munroe. **30**: 1177—1958
Sound head unit of a motion picture projecting and sound reproducing apparatus. Ellis Wellington D'Arcy and George F. Krtous. **30**: 1069—1958
Sound recording apparatus. Adolf Neumann. **30**: 899—1958
Sound tape container. Karl Daniel. **30**: 900—1958
Stereophonic reproduction control apparatus. William B. Snow. **30**: 814—1958
Tape reproducer. Richard Mästling and Hans Schimmelbusch. **30**: 898—1958
Variable area magnetic recording apparatus. Ralph B. Atkinson and Steven G. Ellis. **30**: 898—1958
Variable gap magnetic tape head. John F. Wood. **30**:592—1958
Wide frequency range recording and reproducing apparatus. McIvor L. Parker. **30**: 162—1958

BOOK REVIEWS

Magnetic tape recording. H. G. M. Spratt. (Reviewed by Harry F. Olson.) **30**: 1170—1958

5.17 Telephones, Telephone Earphones, Intercommunication Systems. (See also 5.13.)

SUBTITLES

Transistorized Buddyphone. Walter N. Wainwright. **30**: 1027—1958

PATENTS

Appliance intended for use with subscribers' telephone stations to reproduce incoming calls in a loudspeaker. Karl Flury. **30**: 162—1958
Circuit arrangement for loudspeaker telephone systems. Heinz Nopp and Klaus Wernick. **30**: 502—1958
Dual channel headset. Sheppard Beidler. **30**: 1178—1958
Headphone device. Alfred L. Di Mattia. **30**: 1178—1958
Indication pickup and transmission system. Edwin B. Block. **30**: 998—1958

Intercommunication system. Peter Hermann Robeck. **30**: 501—1958
Intercommunication systems. Martin Helmer Dubois. **30**: 501—1958
Magnetic insert earphone and inserts therefor. William F. Knauert. **30**: 159—1958
Privacy insuring means for intercommunication systems. Angus W. Blow. **30**: 1069—1958
Receiver amplifier. Robert C. Gray and Harry A. Greene, Jr. **30**: 1178—1958
Receiving apparatus for radio signals. Richard L. Pease. **30**: 901—1958
Selectively amplifying loudspeaking telephone. Joseph F. Houdek, Jr. **30**: 502—1958
Sound amplifying apparatus for telephone and like circuits. Donald C. Beatty. **30**: 1178—1958
Telephone for use in noisy locations. Harold C. Pye. **30**: 162—1958
Telephone intercommunication system. Angus W. Blow. **30**: 501—1958
Telephone mouthpiece attachment. Helmut Junghans. **30**: 235—1958
Telephone substation. Joseph J. Radomski, Carl M. Wenrich, and Paul N. Shaaber. **30**: 998—1958
Tray or support therefor. Francis A. Harte, Jr., Thomas W. Bailey, and William H. Bailey. **30**: 501—1958
Voice operated intercommunication system. Stanley S. Brody. **30**: 502—1958

5.18 Transducing Principles, Structures and Materials. (See also 5.8, 5.9, 5.17, 10.3, 13.7, and 13.11t.)

PAPERS
Contour vibrations of thin rectangular plates. Morio Onoe. **30**: 1159—1958
Distributed transducer. Martin Greenspan and Raymond M. Wilmotte. **30**: 528—1958
Dynamic mechanical stability in the variable-reluctance and electrostatic transducers. Charles H. Sherman. **30**: 48—1958
Effect of divalent ion substitutions on the magneto-mechanical properties of nickel ferrite. S. F. Ferebee and C. M. Davis, Jr. **30**: 747—1958
Electroacoustics and transducers. F. V. Hunt. **30**: 375—1958
New technique for measuring transducer blocked impedance. Gerald A. Sabin. **30**: 146—1958
Piezo-optic frequency analyzer. Tomoya Ogawa. **30**: 46—1958

LETTERS TO THE EDITOR
Some remarks on four-pole parameters. G. S. Bennett. **30**: 83—1958

ABSTRACTS
Distributed transducer. Raymond M. Wilmotte and Martin Greenspan. **30**: 687—1958

SUBTITLES
Comparison between observed and calculated values of frequency constant of rotated Y cuts of quartz. Morio Onoe. **30**: 637—1958
Transducers. Francis M. Wiener, Kenneth W. Goff, and David N. Keast. **30**: 862—1958

PATENTS
Electromechanical means of generating subsonic energy. Alfred Davis. **30**: 1178—1958
Electrostrictive ceramic materials. Joseph W. Crownover. **30**: 1178—1958
Heat-controlled acoustic wave system. Warren A. Marrison. **30**: 1070—1958
Piezoelectric interrogation of ferroelectric condensers. Donald R. Young. **30**: 592—1958
Transducer. Wilbur T. Harris. **30**: 1069—1958
Transducer tube. J. Kenneth Trolan. **30**: 162—1958
Vibrational wave generator. Raymond N. Fleck. **30**: 372—1958

BOOK REVIEWS
Piezoelectricity (Selected Engineering Reports, Post Office Research Station). Her Majesty's Stationery Office. (Reviewed by Walter G. Cady.) **30**: 812—1958

5.19 Tuning Forks

PATENTS
Tuning forks. Boris F. Grib. **30**: 373—1958
Vibrating reed-type frequency standard. Robert J. Ehrlinger and Harrison R. Lambert. **30**: 162—1958

6. Musical Instruments and Music

6.1 General, Unclassified

PATENTS
Device for producing typed records of musical compositions. Lewis W. Physioc. **30**: 373—1958
Musical instrument. Frank Hennick. **30**: 100—1958
Musical instrument system. Frank Hess. **30**: 100—1958
Reed and channel sound maker with pointed channel. George Wintriss. **30**: 901—1958
Tone improving means. Angelo J. Dellaira, Marvin H. Pakman, and Chester C. Passerella. **30**: 100—1958

6.2 Bells, Xylophones. Other Instruments Having Rigid Vibrators

PATENTS
Bell tone generator. Jacob T. Kunz. **30**: 1070—1958
Musical box construction. Clair O. Musser. **30**: 163—1958
Musical instrument. Robert A. Smith. **30**: 100—1958
Musical rocking device. Charles R. Nichols, Jr. **30**: 235—1958
Music box. Edward F. Fedoryszyn. **30**: 373—1958
Pedal-operated maracas. Charles Korosh. **30**: 162—1958
Piano action. Kenneth E. Haselton. **30**: 100—1958
Toy musical instrument. Walter O. Gorr. **30**: 373—1958
Toy with sound emitter. William J. Shapiro. **30**: 815—1958

6.3 Brass Wind Instruments (lip vibrated)

PATENTS
Mouthpiece for musical instruments. Frank B. Zottola. **30**:101—1958
Mouthpiece for musical wind instruments. Karl Eduard Schatz. **30**: 100—1958
New tone mouthpiece. Herbert C. Heiskell. **30**: 1070—1958
Valved wind instrument. Leland B. Greenleaf. **30**: 101—1958
Valve for musical instruments. Z. Albert Meredith. **30**: 1070—1958
Valve for musical instruments. Louis R. Miller. **30**: 1070—1958
Water key. Edwin R. Eash. **30**: 101—1958

6.4 Drums and Other Membranophonic Instruments

PAPERS
Variational method for the vibrations of the Indian drums. T. Sarojini and A. Rahman. **30**: 191—1958

ABSTRACTS
Comparison of the acoustic performance of calfskin and plastic drum heads. Howard C. Hardy and James E. Ancell. **30**: 698—1958

PATENTS
Bass drum pedal. Sanford A. Moeller. **30**: 373—1958
Drum beater. Bruce W. Dane. **30**: 373—1958
Drummer's foot pedal. Frederick J. Troppe. **30**: 163—1958
Head for musical instrument of the drum type. James V. Erwin. **30**: 998—1958
Pedal actuated drum sticks. Albert Claude Della-Porta. **30**: 163—1958

6.5 Pipe Organs

PATENTS
Organ coupler stacks. Samuel G. Bowman. **30**: 101—1958

Pipe-organ assembly. Samuel G. Bowman. **30**: 101—1958
Pipe organ wind chest and valve action. Duncan F. Bouma. **30**: 1070—1958

6.6 Pianos and Other Keyboard Stringed Instruments

LETTERS TO THE EDITOR

Physical basis of piano touch. Julius G. Báron. **30**: 151—1958

PATENTS

Adjustable piano pedal. Henning J. Hansen. **30**: 102—1958
Drop action for vertical pianos. Ferdinand T. Machalek. **30**: 102—1958
Educational piano. Anson I. Isaacson. **30**: 1071—1958
Flanges for piano actions. Julius Schwarzbaur. **30**: 1071—1958
Motor driven repeat mechanisms for piano. Edward A. Rasky. **30**: 101—1958
Piano sounding board assembly. Clifford Andersen and Oscar Anderson. **30**: 102—1958
Plectrum piano action. William B. Taylor. **30**: 1071—1958
Practice keyboard. Beatrice Royt and Madeleine Carabo Cone. **30**: 1071—1958
Practice piano. Svante T. Wickstrom. **30**: 101—1958
Tuning hammer. John Lewis Luckenbach. **30**: 102—1958

6.7 Violin Family. Stringed Instruments Except Keyboard Type

PATENTS

Bass guitar. Charles H. Shultz. **30**: 592—1958
Changeable chord finder. Vernon L. Jones. **30**: 502—1958
Electrically operated key-changing harp mechanism. Arthur L. Carron. **30**: 373—1958
Fretted electronic musical instrument. William A. Donahue. **30**: 1071—1958
Mechanical tuning device for Hawaiian guitar. Paul Paulsen. **30**: 815—1958
Musical instrument string winder. Anthony James Longone and Joseph Celeste. **30**: 373—1958
Musical instrument structure and case. George Gassin and Louis N. Crea. **30**: 102—1958
Quick-change string tuner. Cress R. Ferriera. **30**: 1179—1958
Stringed instrument auxiliary bass-bar and sound plate. Rex Arlington. **30**: 102—1958
Stringed musical instrument. Charles H. Marx. **30**: 664—1958
Stringed musical instruments. François Pierre Maurice Baschet. **30**: 1071—1958
Stringed musical instrument with movable bridge. Laurel R. Crosby. **30**: 102—1958
Tone vibrator. Schley Witt. **30**: 815—1958
Tuning device for stringed instrument. Richard L. Robinson. **30**: 502—1958
Tuning head for stringed instruments. Clarence Leo Fender. **30**: 1179—1958
Universal vibrato for musical instruments. Thornton W. Smallwood. **30**: 815—1958
Violin bow attachment. Paul Rolland. **30**: 663—1958
Visual device for teaching musical instruments. Robert J. Pipkin. **30**: 102—1958

6.8 Wood Winds

PATENTS

Clarinet neck attachment. Leon Leblanc. **30**: 1179—1958
Mouthpiece and ligature for reed instruments. James Collis. **30**: 998—1958
Musical instrument. Henry N. Herod. **30**: 1179—1958
Musical instrument accessory. Kearney C. Stone. **30**: 502—1958
Musical whistle. John H. Bacon. **30**: 1179—1958
Rotating loudspeaker. Eli Mizrahi and Andrew Pino. **30**: 1071—1958
Thumb rest for clarinets or other musical instruments. Clem Dowling. **30**: 163—1958
Tuning device for musical instruments. Frederick J. Bushnell. **30**: 163—1958
Wind musical instrument with helical frequency determining means. John W. McBride. **30**: 374—1958

6.9 Electrical Musical Instruments

PATENTS

Acoustic vibrato device for electronic organ. Thomas J. George. **30**: 103—1958
Apparatus for use with tone-producing devices. Bernard Faust. **30**: 1072—1958
Chime striker. Jacob T. Kunz. **30**: 235—1958
Console for key actuated musical instruments and in particular electrical organs. Henryk Spychala. **30**: 104—1958
Electrical musical instrument. Octavio Jose Alvarez. **30**: 104—1958
Electrical musical instrument. Alfred H. Faulkner. **30**: 1073—1958
Electrical musical instrument capable of producing percussion effects. John M. Hanert. **30**: 103—1958
Electromagnetically operated musical instrument. John W. McBride. **30**: 102—1958
Electronically operated music instrument. René Seybold. **30**: 104—1958
Electronic musical instrument. John M. Hanert. **30**: 1072—1958
Electronic music instruction device. Clyde J. Meadows. **30**: 1072—1958
Frequency divider circuit for musical instruments. Harold Bode. **30**: 103(2 patents)—1958
Intensity control device for electrical musical instrument. Hugh Le Caine. **30**: 1072—1958
Musical instrument. Helle Lennart Modéer. **30**: 103—1958
Organ key switch. Joseph A. Mathews, Norman B. Erickson, Charles W. Welsh, and Howard H. Mann. **30**: 104—1958
Outside player for electrical musical instrument. James A. Koehl. **30**: 104—1958
Photoelectric tone generator. Richard E. Williams. **30**: 1072—1958
Pickup and circuit for stringed musical instrument. Clarence L. Fender. **30**: 502—1958
Preamplifier for photoelectric musical instruments. Edward M. Jones. **30**: 104—1958
Stereophonic organ. George R. Stibitz. **30**: 1073—1958
Tape playing musical instrument. Donald Christ. **30**: 104—1958
Tone color assembly for electric organs. Alfred J. Bissonette and Donald W. Elbrecht. **30**: 104—1958

6.10 Reed Organs. Accordions, Harmonicas

PATENTS

Accordion. Julio Giulietti. **30**: 664—1958
Accordion. Amadeo Leone. **30**: 105—1958
Accordions. Thomas Allan Patti. **30**: 815—1958
Accordions. Karl Scherer. **30**: 1073—1958
Audio wave "pickup" for use on musical instruments. Nick Sano. **30**: 664–1958
Chromatic mouthorgan. Hans Bibus. **30**: 815—1958
Harmonica attachment. Harold G. FitzGerald. **30**: 374—1958
Keyboard attachment for electrically operated musical instruments. Emil Carlson. **30**: 105—1958
Keyboard for musical instruments, in particular for accordions. Karl Scherer. **30**: 664—1958
Mounting for accordion keys. Harry Amberg. **30**: 1073—1958
Mouth harmonica. Kurt Mast. **30**: 502—1958

Note selector for pitch pipes. William Kratt. **30**: 1073—1958
Resilient restoring means for accordion keys. Candido Iorio. **30**: 374—1958
Two-way responding single reed and block. Nicholas J. Vento. **30**: 664—1958

7. Noise

7.1 General, Unclassified

PAPERS

Correlation with similar uniform collinear arrays. Melvin J. Jacobson. **30**: 1030—1958
Effect of noise on an "intellectual" task. D. E. Broadbent. **30**: 824—1958
Limits of direct speech communication in noise. J. M. Pickett. **30**: 278—1958
Portable instrument for locating noise sources in mechanical equipment. Donald A. Gilbrech and R. C. Binder. **30**: 842—1958
Reverberation chamber study of the sound power output of subsonic air jets. Richard V. Waterhouse and Raymond D. Berendt. **30**: 114—1958

LETTERS TO THE EDITOR

Fluctuations of scattered noise. Lothrop Mittenthal. **30**: 876—1958
Simplified noise reporting. Robert W. Young. **30**: 363—1958

ABSTRACTS

Alternate transmission channel for use in high-level noise. Henry M. Moser. **30**: 682—1958
Noise control criteria for residential heating and air conditioning systems. Warren E. Blazier, Jr. **30**: 667—1958
Response of structures to high intensity noise. Arthur A. Regier and Harvey H. Hubbard. **30**: 675(T)—1958
Spectrum of noise passed through a symmetrical limiter (with applications to remote masking). Jerome R. Cox, Jr. **30**: 696—1958

PATENTS

Downspout muffler. Francis N. Gladding. **30**: 374—1958

BOOK REVIEWS

Handbook of noise control. Cyril M. Harris, Editor. (Reviewed by Hans L. Oestreicher.) **30**: 810—1958

7.2 Annoyance

LETTERS TO THE EDITOR

Comments on "Comparison of takeoff noise characteristics of the Caravelle jet airliner and of conventional propeller-driven airliners." Kenneth M. Eldred. **30**: 363—1958
Simplified noise reporting. Robert W. Young. **30**: 363—1958

7.4 City Noise

ABSTRACTS

Comparison of the take-off noise characteristics of the Comet jet airliner and of conventional propeller-driven airliners. Laymon N. Miller, Leo L. Beranek, and Robert M. Hoover. **30**: 693—1958
Experimental studies of noise intrusion into the community areas from aircraft flight operations. W. E. Clark, W. J. Galloway, A. C. Pietrasanta, and K. N. Stevens. **30**: 692—1958
Study of community background noise. W. E. Clark, V. A. Clark, and A. C. Pietrasanta. **30**: 667—1958

7.7 Machinery Noise. Mufflers. Noise Silencers

PAPERS

Attenuation of sound in lined air ducts. A. J. King. **30**: 505—1958
Experiments on the influence of flow on sound attenuation in absorbing ducts. Erwin Meyer, Fridolin Mechel, and Günther Kurtze. **30**: 165—1958
Measurement of noise sources in ducts. Ira Dyer. **30**: 833—1958
Noise origin, power, and spectra of ducted centrifugal fans. F. S. Howes and R. R. Real. **30**: 714—1958

LETTERS TO THE EDITOR

Caravelle takeoff noise study. Laymon N. Miller and Leo L. Beranek. **30**: 581—1958
Comments on "Comparison of takeoff noise characteristics of the Caravelle jet airliner and of conventional propeller-driven airliners." Kenneth M. Eldred. **30**: 363—1958
On the effect of missile motion on rocket noise. Alan Powell. **30**: 1048—1958

ABSTRACTS

Acoustical resonances produced by combustion of a fuel-air mixture in a two-dimensional duct. I. Elias. **30**: 677—1958
Acoustic factors involved in design of noncoupled jet-engine silencers. J. H. Gildard and D. B. Callaway. **30**: 694—1958
Field installation acoustic treatment of air conditioning equipment. Carl Becker. **30**: 667—1958
Noise characteristics of some commercial jet aircraft during ground operations. Laymon N. Miller and Robert M. Hoover. **30**: 693—1958
Noise investigation of interfering jets. E. B. Smith and R. Lee. **30**: 694—1958
Noise reduction by parallel baffles for random incidence sound waves. Norman Doelling. **30**: 667—1958
Noise sources and transmission paths in refrigerating compressors. Francis G. Kirschner. **30**: 667—1958
Portable sound suppressor for afterburner operations. E. J. Kirchman and Avery L. Owen, III. **30**: 693—1958
Procedures for the measurement of acoustical effectiveness of ground runup suppressors. Norman Doelling and A. C. Pietrasanta. **30**: 693—1958
Results of field measurements on some runup noise suppressors. A. C. Pietrasanta and Norman Doelling. **30**: 693—1958
Shielding-flap-type jet noise suppressor. D. J. Maglieri. **30**: 694—1958
Some near- and far-field noise measurements for rocket engines operating at different nozzle pressure ratios. W. H. Mayes. **30**: 694—1958
Statistical evaluation of near field sound pressures generated by exhaust of a high performance jet engine. Edwin C. Kamps. **30**: 692—1958

SUBTITLES

Suction roll silencing in paper mills. T. F. W. Embleton and G. J. Thiessen. **30**: 1125—1958

PATENTS

Exhaust muffler. Fred H. Carroll. **30**: 236—1958
Exhaust silencer. John C. Fischer, Jr. **30**: 235—1958
Muffler tubes. Lindsay M. Applegate. **30**: 236—1958
Multiple sound frequency inlet silencer. Joseph N. Heller and Robert H. Spahr, Jr. **30**: 236—1958
Silencer. Jacob K. Brixius and Richard E. Brown. **30**: 235—1958

7.8 Noise Generators. (See also 13.9.)

PAPERS

Methods of generating high-intensity sound with loudspeakers for environmental testing of electronic components subjected to jet and missile engine noise. John K. Hilliard and Walter T. Fiala. **30**: 533—1958

ABSTRACTS

High-intensity sound reverberation chamber and loudspeaker noise generator. W. T. Fiala and J. K. Hilliard. **30**: 675—1958

7.9 Noise of Animals. (Started 1956.)

PATENTS

Means for detecting and indicating the activities of bees and conditions in beehives. Edward Farrington Woods. **30**: 163—1958

NEWS

Echo location in bats. **30**: 991—1958

7.10 Aerodynamic Noise. (Started 1957.)

PAPERS

Acoustic radiation from isotropic turbulence. W. C. Meecham and G. W. Ford. **30**: 318—1958

Experiments on the influence of flow on sound attenuation in absorbing ducts. Erwin Meyer, Fridolin Mechel, and Günther Kurtze. **30**: 165—1958

Jet noise reduction by induced flow. Ira Dyer, Peter A. Franken, and Peter J. Westervelt. **30**: 761—1958

Reverberation chamber study of the sound power output of subsonic air jets. Richard V. Waterhouse and Raymond D. Berendt. **30**: 114—1958

Sonic vibration as exemplified by the RB-66B airplane. D. C. Kennard, Jr. **30**: 462—1958

LETTERS TO THE EDITOR

Experimental comparison between noise from unheated subsonic air jets having 4:1 elliptic and circular orifices. Alan Powell. **30**: 642—1958

Strength distribution of noise sources along a jet. H. S. Ribner. **30**: 876—1958

ABSTRACTS

Aeolian tones. B. Etkin. **30**: 677—1958

Aerodynamic sound radiated from a turbulent boundary layer. O. M. Phillips. **30**: 680—1958

Distribution of sound sources in a jet stream. Ira Dyer. **30**: 676—1958

Estimate of the generation of fluctuating surface pressures on hypersonic vehicles. Edmund E. Callaghan. **30**: 680—1958

Measurement of the fluctuating pressure on the surface of a circular cylinder. J. H. Gerrard. **30**: 677—1958

Method of correlation between sound power spectrum and downstream velocity profiles of a free jet. R. Lee and E. B. Smith. **30**: 676—1958

Noise characteristics of helicopter rotors at tip speeds up to 900 ft/sec. H. H. Hubbard. **30**: 680—1958

Noise radiated by jet systems. Peter A. Franken and Ira Dyer. **30**: 676—1958

On the strength distribution of noise sources along a jet. H. S. Ribner. **30**: 676—1958

Response of plates and membranes to pressure fluctuations of a turbulent boundary layer. M. Strasberg. **30**: 680—1958

Self-maintained transverse oscillations of a jet. Wesley L. Nyborg. **30**: 676—1958

Some aspects of boundary layer induced noise. Alan Powell. **30**: 680—1958

Sound radiation from high Reynolds number turbulence. Robert H. Kraichnan. **30**: 675—1958

Telemetering system for the measurement of boundary layer noise. George W. Kamperman, Denis Noiseux, and R. V. Jones. **30**: 680—1958

NEWS

Shock wave photography of large subjects in daylight. **30**: 992—1958

8. Standards

8.1 General, Unclassified

New standard on electroacoustic transducers. **30**: 882—1958

9. Speech and Singing

9.1 General, Unclassified

PAPERS

Confidence ratings, message reception, and the receiver operating characteristic. Irwin Pollack and Louis R. Decker. **30**: 286—1958

Diffraction effects in the ultrasonic field of a piston source. R. Bass. **30**: 602—1958

Dynamic analog speech synthesizer. George Rosen. **30**: 201—1958

Effect of third-formant transitions on the perception of the voiced stop consonants. Katherine Safford Harris, Howard S. Hoffman, Alvin M. Liberman, Pierre C. Delattre, and Franklin S. Cooper. **30**: 122—1958

Information transmission with elementary auditory displays. William H. Sumby, Davis Chambliss, and Irwin Pollack. **30**: 425—1958

Message repetition and receiver confirmation of messages in noise. Edward C. Carterette. **30**: 846—1958

Nasalization of vowels in relation to nasals. Shirô Hattori, Kengo Yamamoto, and Osamu Fujimura. **30**:267—1958

On the power gained by clipping speech in the audio band. Weiant Wathen-Dunn and David W. Lipke. **30**: 36—1958

Relative intensities of sounds at various anatomical locations of the head and neck during phonation of the vowels. Henry M. Moser and Herbert J. Oyer. **30**: 275—1958

Semantic approach to the perception of complex sounds. Lawrence N. Solomon. **30**: 421—1958

Speech and communication. George A. Miller. **30**: 397—1958

Speech annunciator warning indicator system: preliminary evaluation. Irwin Pollack and Joseph Tecce. **30**: 58—1958

Study of some cues in the perception of the voiced stop consonants. Howard S. Hoffman. **30**: 1035—1958

LETTERS TO THE EDITOR

Note on vowel duration seen cross-linguistically. Samuel A. Zimmerman and Stanley M. Sapon. **30**: 152—1958

Variations in vowel duration: phonemically or phonetically conditioned? Simon Belasco. **30**: 1049—1958

ABSTRACTS

Acoustical analysis of speech. K. N. Stevens. **30**: 668—1958

Shouting over noise with a megaphone. J. M. Pickett and Irwin Pollack. **30**: 669—1958

PATENTS

Binaural apparatus for teaching languages. Leon E. Dostert. **30**: 1179—1958

BOOK REVIEWS

The structure of American English. W. Nelson Francis. (Reviewed by Kenneth N. Stevens.) **30**: 1169—1958

9.2 Anatomy and Physiology of the Speech Organs

ABSTRACTS

Anatomy of unstressed syllables. Leigh Lisker. **30**: 682—1958

Fundamental problems in speech physiology. Gordon E. Peterson. **30**: 681—1958

Measurement of the cross-sectional areas of vocal tracts. Ronald W. Wendahl. **30**: 683—1958

Observations on the acoustical and mechanical properties of the vocal cords. B. Raymond Fink and Francis G. Kirschner. **30**: 681—1958

9.3 Articulation Testing. Intelligibility. Defective Speech

PAPERS

Confidence ratings and message reception for filtered speech. Louis Decker and Irwin Pollack. **30**: 432—1958

Confidence ratings, message reception, and the receiver operating characteristic. Irwin Pollack and Louis R. Decker. **30**: 286—1958

Information transmission with elementary auditory displays. William H. Sumby, Davis Chambliss, and Irwin Pollack. **30**: 425—1958

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PAPERS
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PAPERS
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12. Mechanical Vibration and Shock. (See also 5. and 11.) (Started 1957.)

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SUBTITLES
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13. Underwater Sound

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